

ORIGINAL
FILE

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

JUN - 1 1992

In the Matter of)
)
Amendment of Parts 2, 21, and 94)
of the Commission's Rules To)
Accommodate Private Microwave)
Systems in the 1.71-1.85 GHz)
Band and in Bands Above 3 GHz)

RM-7981

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

TO: The Commission

COMMENTS OF McCaw CELLULAR COMMUNICATIONS, INC.

McCaw Cellular Communications, Inc. ("McCaw"), by its attorneys, hereby submits its comments in response to the Petition for Rulemaking filed by the Utilities Telecommunications Council ("UTC") in the above-captioned proceeding.¹ The UTC Petition stems from the Commission's pending proposal to relocate 1.8-2.2 GHz microwave licensees to accommodate new emerging telecommunications technologies.² If the Commission decides to pursue this objective, it first must ensure that alternative frequency bands have been made

¹ Petition for Rulemaking in the Matter of Amendment of Parts 2, 21, and 94 of the Commission's Rules To Accommodate Private Microwave Systems in the 1.71-1.85 GHz Band and in Bands Above 3 GHz (filed Mar. 31, 1992) [hereinafter "UTC Petition"]. See FCC Public Notice, Petition for Rule Making Filed, Mimeo No. 22934 (May 1, 1992), which set comments for June 1, 1992 and replies for June 16, 1992.

² Redevelopment of Spectrum To Encourage Innovation in the Use of New Telecommunications Technologies, 7 FCC Rcd 1542 (1992) [hereinafter "Notice"].

No. of Copies rec'd
List A B C D E

0+4

available for the displaced microwave users before proceeding with further action in the emerging technologies docket.

In its Petition, UTC requests the Commission to implement rule changes in various frequency bands that might serve as alternative spectrum homes for existing 2 GHz microwave operations. Currently, the technical and eligibility provisions for frequencies above 3 GHz present impediments to a seamless transfer from the lower to the higher bands. Accordingly, McCaw supports prompt Commission action on UTC's Petition as a necessary step before any forced migration of 2 GHz microwave systems is ever required.

I. EXISTING 2 GHZ LICENSEES CANNOT BE REQUIRED TO RELOCATE UNTIL RULES FOR THE REPLACEMENT BANDS ARE MODIFIED

McCaw, as the nation's largest cellular service provider, is a heavy user of 2 GHz microwave facilities. These links play a critical role in McCaw's provision of cellular services to the public. McCaw is now faced with having to replace 440 facilities operating on 2 GHz with alternative microwave frequencies or other transmission means under proposals pending in the emerging technology proceeding.

McCaw's 440 facilities are only a portion of the 7,000 common carrier facilities operating at 2 GHz (which have been rapidly growing in number) that the Commission has proposed

to relocate elsewhere.³ Also in the 2 GHz band, there are 22,000 private microwave users, the majority of which likewise will need to move.⁴ To facilitate this transition, it is essential that the replacement bands be capable of accommodating the current 2 GHz users.

As UTC points out, the Commission has not yet proposed any specific rule changes to the higher band relocation homes. Rather, the Commission has suggested "a 'blanket' waiver of the eligibility requirements in these bands for existing 2 GHz fixed microwave users."⁵ This action, however, would not address the fact that, "[t]he technical rules and coordination procedures currently applicable to each of the higher frequency bands . . . will apply."⁶ Unfortunately, the higher band technical rules and coordination procedures specify incompatible channelization and unrealistic loading minimums not suitable for present 2 GHz operations.

The concerns voiced in the UTC Petition are a logical outgrowth of the Commission's emerging technologies

³ See "Creating New Technology Bands for Emerging Telecommunications Technology," FCC/OET TS92-1, at 8 (January, 1992).

⁴ Id. The Commission has proposed exempting state and local government facilities from its relocation plan.

⁵ Notice, 7 FCC Rcd at 1545.

⁶ Id.

reallocation proposal. The need affirmatively to accommodate the displaced 2 GHz users is apparent. Failure to take appropriate steps is likely to frustrate the Commission's goal of creating spectrum opportunities for new service providers while minimizing disruption to valuable existing services. Accordingly, the Commission should not require any relocation out of the 2 GHz band unless and until technical rules for the other microwave bands are revised.

II. THE UTC PETITION IS AN APPROPRIATE VEHICLE FOR ADDRESSING REQUIRED RULE AMENDMENTS

To accommodate the displaced 2 GHz private users, UTC suggests a number of rule changes. In the 4 and 6 GHz bands, the petition shows that a rechannelization is necessary to accommodate the narrower bandwidths now found at 2 GHz. UTC also points out that, in these bands, as well as in 11 GHz, current loading requirements will need to be eliminated or modified. The petition further recommends that a portion of the 4 GHz band be reallocated to the Fixed-Satellite Service on a secondary basis in order to make spectrum functionally available for fixed microwave uses. Finally, UTC urges the Commission to act to secure access to the 1710-1850 MHz Government band on a shared basis.⁷

⁷ UTC also expresses concerns that interference standards, where both common carrier and private microwave operators are licensed in the same band, be designed to meet the protection needs of public safety/public use systems.

McCaw supports UTC's rulemaking request as an important effort to minimize disruption to existing 2 GHz microwave operations. The petition aptly underscores the inherent difficulty in relocating more than 22,000 2 GHz private microwave facilities to the replacement bands identified by the Commission. The incompatible channelization and channel loading requirements make spectrum at the 4, 6, and 11 GHz bands, as presently configured, unsuitable replacements for private microwave systems.⁸

**III. THE UTC RULEMAKING SHOULD ALSO ADDRESS
COMMON CARRIER MICROWAVE RELOCATION NEEDS**

Similar difficulties also will confront the common carrier licensees at 2 GHz in seeking to relocate their microwave facilities. Accordingly, the Commission's proceeding should encompass rule changes necessary to accommodate common carrier licensees of 2.11-2.13 and 2.16-2.18 GHz as well. The requested relief is essential to ensure the uninterrupted continuation of services on which consumers depend.

As noted above, UTC has pointed out in its petition some types of changes it believes are necessary to permit private microwave licensees to make efficient use of 4, 6, and 11 GHz frequencies. Modified technical, performance, and

⁸ UTC Petition at 9-12.

eligibility standards are likewise needed in order to facilitate the transition of common carrier 2 GHz users to these and the other relocation bands.

The common carriers in the 1.8-2.2 GHz band generally employ systems with narrower bandwidths than are prescribed at 4, 6, and 11 GHz. The maximum bandwidth for the 2110-2130 and 2160-2180 MHz frequencies is 3.5 MHz.⁹ Pursuant to industry practice, McCaw understands that channel bandwidths are set at 3.5 MHz, 3.2 MHz, and 1.6 MHz. In the 4, 6, and 11 GHz bands, the maximum bandwidths are much higher. As a result, only the upper 6 GHz band specifies channels less than 5 MHz in bandwidth (3 pairs of 1.6 MHz channels and 11 channels of 800 kHz).¹⁰ The remaining channel bandwidths are set at 5, 10, 20, and 30 MHz. Resolving this conflict may be the most important step to be taken in permitting effective access to the higher bands. In addition, loading requirements, minimum path length requirements, antenna standards, and modulation efficiency standards need to be adapted for 2 GHz common carrier licensee needs.

UTC is not the only entity addressing these concerns. Alcatel Network Systems, Inc. ("Alcatel"), which manufactures microwave equipment, has filed its own petition for

⁹ 47 C.F.R. § 21.703(a) (1991).

¹⁰ There are far more narrow bandwidth channels in the 2 GHz band than can be accommodated in the existing 6 GHz 1.6 MHz and 800 kHz channels.

rulemaking. That filing includes proposed rules to permit "co-primary use of all available bands by private op-fixed and common carriers" and that specify "band channelization, modulation efficiency standards and minimum channel loading requirements, minimum path length requirements, frequency coordination criteria, and antenna standards."¹¹ McCaw fully expects to assess and comment upon those proposals, as well as any others presented to the Commission, pursuant to the applicable pleading schedules. Certainly, these other proposals can and should be considered in combination with the issues raised by UTC.¹²

IV. CONCLUSION

UTC has put forward proposed rule changes that are essential conditions precedent to a smooth and timely reallocation of 2 GHz microwave users. For these reasons, McCaw supports UTC's Petition and requests the Commission expeditiously to address these matters so that no 2 GHz user

¹¹ Alcatel Network Systems, Inc. Petition for Rulemaking in the Matter of Amendment of Parts 2, 21, 25 and 94 of the Commission's Rules to Accommodate Common Carrier and Private Op-Fixed Microwave Systems Above 3 GHz, RM-_____, at 2 (filed May 22, 1992).

¹² The Commission has implicitly recognized that disruption to existing and planned operations in the replacement bands may result from the relocation of incumbent 2 GHz cellular carriers, like McCaw. Thus, while rule changes as discussed herein are necessary, they must be carefully crafted so as to not detrimentally affect current users or typical uses in these bands.

is forced to move before appropriate rule changes for alternative spectrum homes are effective. These matters must be addressed before the Commission moves forward on the emerging technologies docket.

Respectfully submitted,

MCCAWE CELLULAR COMMUNICATIONS, INC.

By: Scott K. Morris / lab
Mark R. Hamilton
Scott K. Morris
McCaw Cellular Communications,
Inc.
5400 Carillon Point
Kirkland, Washington 98033
(206) 828-8414

Its Attorneys

June 1, 1992

CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of June, 1992, I caused copies of the foregoing "Comments of McCaw Cellular Communications, Inc." to be mailed via first-class postage prepaid mail to the following:

Jeffrey L. Sheldon
Sean A. Stokes
UTILITIES TELECOMMUNICATIONS COUNCIL
1140 Connecticut Avenue, N.W.
Suite 1140
Washington, D.C. 20036



Linda Hetrick